X Server Integration Testing

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Testing is hard.
Manual testing is painful.

We need some automated test suite.

XTS is not it.

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- Artistic license
- Crufty code
- Needs auditing for false positives (and negatives)
- Written in a not-quite-C language that needs to be converted to C first
- No real automated log parsing

- But: over 1000 test cases!

Needed: combined tests for server and driver

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- Writing test cases must be simple
  - Writing test cases **should be required**
- Parsing output logs must be simple
- Executing tests must be reliable and predictable

X.org integration test (XIT) suite

xorg-gtest

- git://git.freedesktop.org/git/xorg/test/xorg-gtest

googletest

googletest

- C++ framework
- Provides ASSERT_* macros
- Provides several ways to execute test (with/without parameters, etc)
- Text/xml-based logging
  - Integration with e.g. Jenkins

XIT example test cases

Discussion

Is googletest the right framework?

Scalability to accommodate future tests

Testing version combinations

Documentation of test cases

Controlled execution of tests

Integration systems

Discussion points

- Is googletest the right framework
  - What about XTS?
- Scalability and namespace maintenance
- Handling version combinations
  - Distro-specific test results
- Documentation of test cases
- Controlled execution of tests
- Integration systems